

ENTOMOLOGY.

APR 17 1912

The thirty-seventh regular quarterly meeting of this Society was held on the evening of August 20, 1910, at 1801 O'Farrell Street, San Francisco.

President Van Dyke in the chair.

Minutes of the preceding meeting were read and approved.

Ten members responded to roll-call as follows:

President Van Dyke, Chas. Fuchs, F. W. Nunenmacher, J. E. Cottle, Dr. F. E. Blaisdell, J. C. Huguenin, Leon E. Munier, J. F. Killeen, Percy Baumberger, Dr. Creighton Wellman.

The following guests were present:

Prof. W. B. Herms, Mr. J. C. Bridwell, Mr. R. F. Sternitzky, Mrs. C. Wellman, Mrs. J. E. Cottle, Mrs. F. E. Blaisdell, Mrs. J. C. Huguenin, Mrs. F. W. Nunenmacher, Mrs. L. C. Marvin, Mrs. L. E. Munier.

The Treasurer rendered his report.

President Van Dyke reported the whereabouts of several absent members, namely: Miss Julia Wright, visiting in Oregon; Mr. Karl R. Coolidge, in Arizona, and Mr. Wm. Mann collecting in the same region.

Mr. James Cottle reported a collecting trip in July, 1910, to Castella, Siskiyou County, California. He stated that there were no *Lycaenæ*; the milk weeds were all past blooming and dry; and *Parnassus* were absent, although they were said to be abundant on meadows near Echo Lake. Four *Papilio daunus* were taken. No *Sphinx sequoiae* were seen, and but five specimens of *Sphingidae* were taken at the evening primrose.

Mr. Huguenin stated that on Aug. 14th, 1910, while collecting at Fairfax, Marin County, California, he captured a series of *Rosalia funebris*. The time is two months later than the regular time, as heretofore reported. They were taken from the trunks of the California laurel (*Umbellularia californica*).

Dr. Van Dyke stated that *Rosalia funebris* breeds in ash (*Fraxinus oregona* and *dipetala*) in Washington, according to Prof. O. B. Johnson, while it breeds in California laurel in this State.

Mr. J. F. Killeen said that it also breeds in maple (*Acer macrophyllum*). Mr. Nunenmacher stated that the species is very abundant at Irvington, Alameda County, California, and that it comes to the light.

Dr. Wellman stated that he had been working regularly since the last meeting of the Society, on the *Meloidæ* of East

India, and that he had received the material from museums and private collections. Mention was also made of the faunal regions covered by his studies.

Dr. Van Dyke stated apropos of Dr. Wellman's remarks, that from some observations which he had made upon various species from the Sonoran, the Mediterranean and Aral-Caspian basin, and the Australian, he had come to the conclusion that the more typical part of the fauna of these three dry regions had a common origin, and the faunæ therefore were not secondary to their adjacent tropical regions but were of equal standing with them, and to a very great extent independent.

Dr. Wellman then stated that *Zonitis* and *Lytta* are the most primitive genera of the *Meloidæ*.

J. F. Killeen made remarks on *Coccinella trifasciata* and *Adalia bipunctata*. He further stated that he had been experimenting on ants. These pests were trapped with bouillon poisoned with arsenic or strychnine.

Prof. W. B. Herms, being called upon, stated that ecology was the relation of organisms to their environment, and that investigators in defining the forms were departing from bizarre characters to generalities; that he was interested in the sensory reactions of organisms to stimuli, such as heat, electricity, etc. At present he was working in Medical Entomology, studying the distribution of *Anopheles*. He had a dark room fitted up for studying the reactions of the organism, to determine what substances are most attractive to the insects. By chemical means, he tested the reaction of an insect, as through the agency of air currents between tubes containing different substances, as water, etc. In the room there are fifty tubes on each side, and the object is to see to which tube the insect is attracted.

Mr. Bridwell, recently from Oregon and a Hymenopterist, being called upon, said that from what little collecting he had done in California, showed that there was a great variation in the species, and he considered that there was great need of rearing insects, in order to study variation, as we have too many species listed. He believed that we should rear species from different localities and under the same conditions, and cited the tent-caterpillar as an example.

Mr. Nunenmacher said that the tent-caterpillar of Arizona was most interesting as it never leaves its tent.

Percy Baumberger reported the results of a month's collecting,—from June 15th to July 15th,—at St. Helena, Napa County, California, in the previous year. He said as follows: "I found that the best collecting could be done along the creeks, by beating the weeds and alfalfa, also at lights. There was nothing on the laurels, willows, redwoods and pines. I made a trip to a cave while there. It was a long and narrow one; it wound around and descended in a serpentine manner. The walls were of clay, over which ice-cold water ran. I went in about a mile, but could not

go any farther, because the passage was too small. Three beetles were caught, all light yellow and almost transparent. These were lost, except the elytron of one. A number of small centipedes and the remains of *Necrophilus hydrophiloides*, *Promecognathus laevissimus*, and *Pterostichus caligans* were found. About a hundred species were taken on this trip, not including any of the electric light material and the *Staphylinidae*."

The list is as follows:

- | | |
|--|--------------------------------------|
| <i>Cicindela oregonae</i> Lec. | <i>Tropisternus ellipticus</i> Lec. |
| <i>Cychrus interruptus</i> Mén. | <i>Hydrocombus imbellis</i> Lec. |
| <i>Nebria Eschscholtzii</i> Mén. | <i>Necrophorus nigritus</i> Mann. |
| <i>Dyschirius tridentatus</i> Lec. | <i>Staphylinus saphyrinus</i> Lec. |
| <i>Bembidium recticolle</i> Lec. | <i>Paranaemia vittigera</i> Mann. |
| <i>Bembidium planiusculum</i>
Mann. | <i>Hippodamia convergens</i> Guér. |
| <i>Bembidium complanulum</i>
Mann. | <i>Coccinella juliana</i> Muls. |
| <i>Bembidium transversale</i> Dej. | <i>Coccinella californica</i> Mann. |
| <i>Bembidium erasum</i> Lec. | <i>Olla abdominalis</i> Say. |
| <i>Bembidium striola</i> Lec. | <i>Scymnus marginicollis</i> Mann. |
| <i>Bembidium timidum</i> Lec. | <i>Brontes truncatus</i> Mots. |
| <i>Bembidium dentellum</i> Thunb. | <i>Dryops productus</i> Lec. |
| <i>Bembidium brevistriatum</i>
Hayw. | <i>Cryptohypnus squalidus</i> Lec. |
| <i>Pterostichus californicus</i> Dej. | <i>Cryptohypnus pectoralis</i> Say. |
| <i>Pterostichus vicinus</i> Mann. | <i>Asaphes dilaticollis</i> Mots. |
| <i>Amara insignis</i> Dej. | <i>Athous nigripilis</i> Mots. |
| <i>Amara californica</i> Dej. | <i>Heterocerus gemmatus</i> Horn. |
| <i>Calathus ruficollis</i> Dej. | <i>Chrysophana placida</i> Lec. |
| <i>Platynus brunneomarginatus</i>
Horn. | <i>Lampyridæ</i> (not worked up). |
| <i>Platynus funebris</i> Lec. | <i>Collops marginellus</i> Lec. |
| <i>Brachynus Tschernikhii</i> Mann. | <i>Listrus</i> (not worked up). |
| <i>Chlaenius leucoscelis</i> Chev. | <i>Attalus</i> (not worked up). |
| <i>Apristus laticollis</i> Lec. | <i>Sinoxylon basilare</i> Say. |
| <i>Agonoderus lineola</i> Fab. | <i>Amphicoma canina</i> Horn. |
| <i>Stenolophus anceps</i> Lec. | <i>Serica alternata</i> Lec. |
| <i>Bradyceillus rupestris</i> Say. | <i>Polyphylla 10-lineata</i> Say. |
| <i>Anisodactylus piceus</i> Mén. | <i>Polycaon stoutii</i> Lec. |
| <i>Anisodactylus semipunctatus</i>
Lec. | <i>Ergates spiculatus</i> Lec. |
| <i>Anisodactylus californicus</i> Dej. | <i>Prionus californicus</i> Mots. |
| <i>Deronectes striatellus</i> Lec. | <i>Tragosoma pilosicornis</i> Casey. |
| <i>Ilybius regularis</i> Lec. | <i>Criocephalus productus</i> Lec. |
| <i>Agabus lugens</i> Lec. | <i>Phymatodes obscurus</i> Lec. |
| <i>Dytiscus marginicollis</i> Lec. | <i>Xylotrechus undulatus</i> Say. |
| <i>Thermonectes latecinctus</i> Lec. | <i>Xylotrechus obliteratus</i> Lec. |
| <i>Helophorus obscurus</i> Lec. | <i>Pachyta spurca</i> Lec. |
| <i>Hydrophilus triangularis</i> Say. | <i>Lema nigrovittata</i> Guér. |
| | <i>Monoxia guttulata</i> Lec. |
| | <i>Haltica bimarginata</i> Say. |
| | <i>Haltica</i> (not worked up). |
| | <i>Crepidodera Helxines</i> Linn. |
| | <i>Epitrix subcrinita</i> Lec. |

<i>Glyptina cerina</i> Lec.	<i>Xanthochroa californica</i> Horn.
<i>Phyllotreta lepidula</i> Lec.	<i>Notoxus</i> (not worked up).
<i>Phyllotreta vittata</i> Fab.	<i>Copturus</i> (not worked up).
<i>Bruchus</i> (not worked up).	<i>Baris carinulata</i> (?) Lec.
<i>Cibdelis Blaschki</i> Mann.	<i>Trichobaris trinotata</i> ¹ Say.
<i>Helops rugulosus</i> Lec.	

The names of Prof. W. B. Herms, Mr. J. C. Bridwell, and R. F. Sternitzky were proposed for membership. President Van Dyke put the motion and the members unanimously agreed that the Secretary should cast the vote. Elected.

Dr. Blaisdell stated that the thirty-sixth meeting, or Field Day, was not held in May, 1910, on account of the Society not deciding on a suitable place at the thirty-fifth meeting.

Adjournment and refreshments were served at the Café Oberon.

F. E. BLAISDELL, Secretary.

The thirty-eighth meeting of the Society was held on the evening of December 3d, 1910, at the Toke Point Grill, San Francisco.

President Van Dyke in the chair.

Minutes of the preceding meeting were read and approved.

Eleven members were present, namely: President Van Dyke, Chas. Fuchs, J. G. Grundel, F. W. Nunenmacher, J. E. Cottle, Dr. F. E. Blaisdell, J. C. Huguenin, Percy Baumberger, Dr. C. Wellman, R. F. Sternitzky, J. C. Bridwell.

Guests: Mrs. J. Cottle, Mrs. C. Wellman, and Mrs. F. E. Blaisdell.

The Treasurer's report was read.

Under new business it was voted to raise the dues to \$1.00 a year, in order to accumulate funds for publishing the proceedings of the Society at the end of each year.

Dr. Blaisdell read a paper on the "Variations in the Maculations of *Olla abdominalis*, and Observations on the Hibernating Habits of *Cicindela senilis*."²

Mr. Nunenmacher supplemented the paper with other interesting observations on the variations in the maculations of *Olla abdominalis*.

Mr. J. C. Bridwell gave an interesting talk on the habits, characters, and distribution of an interesting group of Hymenoptera, with exhibition of the species.

Mr. Chas. Fuchs made remarks on the generic representatives of the *Cicindelidæ* and *Carabidæ* in his own collection. He stated as follows: "To my representatives of the genera of the *Cicindelidæ* and *Carabidæ* of the United States, as arranged

¹ *Trichobaris trinotata* is Eastern; it is more probably *sparsa* or *mucorea*.

² To be published in the Entomological News.

by the classification of Dr. John L. Leconte and Dr. Geo. H. Horn, in 1883, I have added three exotic genera and species mentioned in the Systematical Index of the *Cicindelidae* published by Dr. Walther Horn, 1905, namely: *Pynochila fallaciosa* Chevrolat, *Mantichora tuberculata*, aberr. *tibialis* Bohman, and *Platychila pallida* Fabricius,—three species not often seen in collections.

"In arranging the *Cychrini*, I have made use of the Monograph of the Carabid Tribe *Cychrini*, by Dr. Hans Roeschke, 1907.

"In that monograph, all of the known species of the *Cychrini* of the world are mentioned.

"With the exception of seven rare species, I have representatives of all the tribes found in the United States, as well as of the species mentioned by Dr. Roeschke. I have been unable to procure a specimen of the sub-genus *Cychropsis*. Through the kindness of Dr. Van Dyke, I learned that *Cychropsis sikimensis* Fairm., is found in India, in the Himalayan Mountains, and that it is of such rarity that it can only be seen perhaps in three collections in the world. An illustration of the head can be seen in Roeschke's Monograph."

Mr. Fuchs exhibited his generic series of the two Families mentioned.

Mr. J. E. Cottle exhibited and made remarks upon an interesting specimen of *Pyrameis* near *Mulleri*.

F. W. Nunenmacher gave some observations on the variations in maculation of *Olla abdominalis*, and referred to his studies on *Scymnus*. The following species of *Coccinellidae* were exhibited: *Axion incompletus* Nunenmacher, *Psyllobora Koebelei*, *Hyperaspis wolcotti*, *Hyperaspis wellmani*, *Hyperaspis floribunda*, *Hyperaspis lateralis* var. *fiamula*; with Schaeffer's new species and co-types of *Rhyssematus oculatus*, *Otidoccephalus basalis*, *Brachytarsus nigromaculatus*, *Tychius suturalis*, *Bruchus crenatus*, *Laccophilus insignis*, *Xylotrechus quercus*, *Pogonocherus negundo*, *Chauliognathus obscurus*, *Ch. vittatus*, *Onthophagus arizonensis*, *Cyatodera antennata*, *Hydnocera fuchsi*, and a few night and day flyers from Northern California.

Dr. Creighton Wellman exhibited specimens of the new *Hornia gigantea* collected by F. X. Williams in Kansas, together with other representatives of the Lyttid Tribe *Sitarini*, arranged so as to show the relations of the genera. He pointed out that through the palearctic *Hapalus*, *Stenoria*, *Sitaris*, etc., the elytral reduction led by degrees to such strange forms as the Australian *Sitarida* and *Goëtymes* and that these in turn were replaced by the Asian *Sitarobrachys* and American *Leonidia* and *Hornia*, the last having the wings as well as elytra almost wanting and the tarsal claws simple; in other words, the degradation had become complete.

In referring to Dr. Blaisdell's paper, he remarked, among

other things, that the embryology and metamorphosis of animals were valuable as interpretative side lights on phylogenetic descent and that the pale forms were as a rule (which has many exceptions, both from physical and selectional causes) primitive, pigmentation being a comparatively late phenomenon in many organisms. Reference was made to the influence of the remnants of the principal and cross-wing veins on the disposition of elytral fasciae and vittæ.

Mr. Nunenmacher followed with remarks on the habits of a mud-dauber wasp and type labeling.

Dr. Wellman took up the question of types and stated that with one type specimen there could be no mistake, or with a male and female type.

The International Entomological Congress was recommended as a body to settle such questions.

Dr. Van Dyke stated that as Dr. Wellman had been appointed Secretary of the International Entomological Congress, we should appoint him as our representative and request him to use his influence to have the next Congress meet in San Francisco, in 1915.

A motion was made and carried to that effect. Dr. Wellman was appointed as a committee of one.

Mr. Nunenmacher thought that the Society should give Dr. Wellman power to go ahead immediately with the matter, and not delay it until some other decision had been reached by that body.

A communication was read from Mr. L. E. Ricksecker, which stated that the "Natural History Society," at San Diego, owns a fine business lot, which it has leased at a good rental for thirty years, and the Cranes are now building an eight-story, steel-frame extension to their hotel on the same. The Society will have a fine museum-room on the upper floor and at the expiration of the lease, will own the building. He further stated that the "Weather is exceedingly fine; so fine that all of the common butterflies are flying (Nov. 30th, 1910). *Colias eubula* is among them. I would like to know whether *Apantesis nevadensis* var. *superba* Stretch, is common in the north or anywhere in California. I take two or three each year,—late in the season. I desire to mention that a year ago I found about sixty caterpillars in the desert. They were feeding on juniper. My facilities for taking care of them were not good and I lost most of them. At home I fed one, the last remaining one, on Monterey Cypress, to maturity, and I recognized it as a *Gloveria*,—very similar to the larva of *G. medusa*. It spun a similar cocoon, but failed in the transformation and died."

A discussion of the several papers and refreshments followed.

F. E. BLAISDELL, Secretary.

The thirty-ninth regular meeting of the Society was held on the evening of Feb. 25th, 1911, at the Toke Point Grill, O'Farrell street, San Francisco.

President Van Dyke in the chair.

Minutes of the preceding meeting were read and approved.

Ten members were present: President Van Dyke, James E. Cottle, Chas. Fuchs, Dr. F. E. Blaisdell, J. G. Grundel, J. C. Huguenin, Miss Julia Wright, Leon E. Munier, Wm. Mann, Percy Baumberger.

The guests present were: Mrs. F. E. Blaisdell, Mrs. Leon Munier, Mrs. J. E. Cottle, Mr. and Mrs. Geo. Alex. Wright, Miss Bessie Wright.

The Treasurer's report was read.

Communications from Mrs. Kirkaldy, Prof. J. J. Rivers, and Edw. Ehrhorn were read.

Prof. Rivers stated a desire to withdraw from the Society. It was moved and carried that he be made an honorary member.

President Van Dyke stated that it was desirable to obtain photographs or autographic letters from the older members of the Society, and also of other Entomologists of the Pacific Coast, both of the past and present, a good beginning having been made in obtaining those of Prof. J. J. Rivers and W. G. W. Harford, both belonging to the older set of the recent workers.

Mr. Wm. Mann gave an account of collecting in Arizona, at the lights; also on a trip to the Huachuca Mountains. He reported *Eleodes* as the characteristic beetle of that region, and *Vespa* as very common; *Cychrus Roeschkei* was taken on the trip.

Mr. J. C. Huguenin gave some very interesting information about collecting in winter in the vicinity of San Francisco. He stated that his records of capture of *Calligrapha Sigmoidea* were as follows: February 26th, 1910, three specimens; March 11th, 1910, seven specimens; April, 1910, none; December 7th, 1910, three specimens; December 18th, 1910, six specimens; January 3d, 1911, five specimens; February 15th, 1911, four specimens; February 20th, 1911, five specimens; March 12th, 1911, nine specimens. Trips were made each month to the locality and he stated that from his observations he believed it to be a winter species. Eggs and larvae were found. The food plant is the wild hollyhock, a species of *Sidalcea*. All stages were exhibited.

Dr. Van Dyke thought that they were the hibernating adults that had been coaxed out by the warm weather, and had crawled up on the plants as stated.

Mr. Huguenin said that he found the eggs on the leaves of the food plant, and had taken some of the plants home and replanted them in a flower pot; twenty-four days after, larvae appeared and grew.

Dr. Van Dyke reported that he had been working for a few months at home and in the field, on a Catalogue of the Fauna of the San Francisco Bay District, and that the time had arrived for a change in the methods of collecting.

He stated that it is necessary to investigate closely and to work out the life histories of the species. Close collecting is constantly adding new and interesting things. No new *Cicindelidae* have been recently added; but among the *Carabidae*, a new variety of *Trechus barbara*, and at the same time, a new *Ochthebius* with the MS. name of *marinus*. Both of these species belong to a between-tides fauna. In Marin County, California, the blind *Tenebrionid*, *Eschatoporis Nunenmacheri* had recently been found by Mr. Nunenmacher. Other things never before found south of Washington, had also been found there. We must work closely with the *Rhyncophora*, as many a new species or species new to this locality is to be found.

Working among the *Cossonidae* of the State, it was found that much confusion has occurred with regard to several of the species. There are five species of *Cossonus* found on the Pacific Coast, two of which are new. In the genus *Meloe*, two species not found here before, have recently been captured. New *Otiorhynchids* are constantly being found. After viewing and discussing the exhibits, refreshments followed.

F. E. BLAISDELL, Secretary.

The fortieth meeting or Annual Field Day of the Society was not held. The question of a suitable place was not decided upon at the thirty-ninth or February meeting, and the committee refused to act.

F. E. BLAISDELL, Secretary.